

Practical Enforcement MANUAL



DEPARTMENT OF ENVIRONMENT
MINISTRY OF SCIENCE, TECHNOLOGY AND THE ENVIRONMENT, MALAYSIA



Practical Enforcement Manual

- Focus on on-site inspections

PERPUSTAKAAN
Institut Alam Sekitar Malaysia
Environment Institute of Malaysia

Restricted Document: For DOE Personnel Only

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Foreword

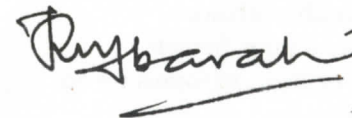
The overall goal of the Department of Environment is to ensure sustainable development, and in particular sustainable industrial development. One of the most important tools to pursue this goal is effective enforcement of the Environmental Quality Act, 1974, through well planned and well performed on-site inspections. It is an area where we use a sizeable amount of our limited resources. It is therefore of the utmost importance that enforcement and on-site inspections are carried out prudently and effectively.

Presently, the Department of Environment is promoting an information friendly approach with the industrial enterprises. This approach is based on the idea that policing should not be the sole means of enforcement, but should as far as possible go hand in hand with a process of dialogue with the industries. The overall goal is still - as it always was - to obtain compliance. However, this goal may become easier to obtain if the industry has an understanding of the importance and advantages of better environmental performance and, consequently, also a stronger feeling of commitment.

The present Practical Enforcement Manual has therefore been developed to provide the inspection officers with general knowledge on DOE enforcement policy and strategies and on basic procedural requirements for inspections. The Manual also provides good advice on proper practice that will be in line with DOE's approach and strategies for enforcement. One of the basic principles of the Manual is that careful thought and good judgement shall always be applied as no amount of checklists can substitute careful thinking of DOE officers.

The Manual shall not stand alone. A series of industry specific handbooks are currently being developed as an important technical tool for the inspection officer and as a means to facilitate the dialogue with the industry. In addition, DOE has embarked an extensive training programme in the field of enforcement.

The development of the Manual, the Handbooks and the training programme could not have been undertaken by DOE without the generous support of the Danish Cooperation for Environment and Development (DANCED).



Hjh. Rosnani Ibarahim

Director General of Environmental Quality, Malaysia

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Introduction

Enforcement of the Environmental Quality Act (EQA) is a priority for the Department of Environment (DOE). Even good legislation is of limited value if it is not enforced properly.

This manual has its focus on on-site inspections of polluting enterprises, which is a crucial enforcement activity. The manual is intended as a guide for the DOE officers and technicians who on a regular basis perform on-site inspections and conduct control of compliance with the EQA.

The manual has been elaborated as an activity under the DOE Capacity Building Project. The development of the training package on Practical Enforcement has been another activity of this project. The training package has been used as background material for the elaboration of this manual.

The manual is divided in four main parts. The first part is presenting the DOE policies and strategies for enforcement of the EQA. The second part is explaining the formal requirements for the inspection activities, specifically the formal powers and responsibilities of the inspection officer. The third part is lining up the standard procedural steps for planning and performing on-site inspections and for reporting and following up the inspections. The fourth part is explaining the procedural steps in more detail and gives good advice on proper practice. Finally examples of standard formats and checklists and other basic information are annexed the manual.

As a supplement to this manual, handbooks with branch specific information on high - priority industrial sectors are being developed currently by the Capacity Building Project. These handbooks will cover issues of specific importance for environmental management and enforcement such as: Production processes, flowcharts, raw materials used, pollution control systems, legal requirements, commonly experienced environmental problems and viable technical solutions, and specific checklists for inspection and follow - up.

More specific enforcement activities, such as conducting various kinds of sampling and performing prosecution of non-compliances are not dealt with in detail in this manual, but will be covered by separate manuals and guidelines as appropriate.

Part I

DOE enforcement policies and strategies

Under the National Development Plan and in the Second Outline Perspective Plan (OPP2) as well as in the Seventh Malaysia Plan emphasis is given to the enhancement of the quality of the environment and ecology to ensure sustainable development of the country.

Based on the above overall environmental policy objectives and in accordance with the Environmental Quality Act, 1974 (EQA) the Department of Environment has formulated and adopted the following departmental, overall strategies:

- Pollution control and prevention
- The integration of environmental factors in project planning and implementation
- Environmental inputs into resource and regional development planning.

In accordance with these strategies enforcement of the EQA and subsidiary legislation is a core responsibility for DOE. The current policy and strategies for enforcement are outlined below:

Policy:	DOE carries out Enforcement to prevent and control pollution and to bring about compliance with the EQA and all subsidiary legislations made hereunder.
Strategies to implement the policy:	
Consistency:	DOE will consistently and persistently enforce the law to ensure full compliance.
Proportionality:	The enforcement action will commensurate with the offence committed.
Planning and priority:	Careful planning and prioritisation will form the basis of all enforcement activities.
Best practicable approach:	Best practicable means will be considered and used to promote compliance
Cooperation:	DOE will enforce in cooperation with other relevant authorities whenever possible and appropriate.
Partnership:	DOE will strive for awareness and commitment by industries towards sustainable pollution prevention and control through dialogue, advice and demonstration projects/activities etc.

Part II

Legal Powers of the Inspection Officer

The EQA 1974 has as its main objective the prevention, abatement and control of pollution and enhancement of the quality of the environment. The EQA confers powers to the Minister and to the Director General of DOE for the management and enforcement of the Act.

The Director General (DG) is given the general powers to administer the Act, specifically to issue licenses, written permissions and approvals. The Director General also has powers to enforce the Act, i.e. to investigate and compound offences.

In accordance with section 49 of the EQA the DG has the authority to delegate his powers on specific issues to any other public officer or to other authorities. Such delegation must be confirmed by the DG in writing.

Under such provisions some powers have been delegated to inspection officers at DOE Headquarters and at the DOE State Offices.

An inspection officer generally has the following responsibilities:

- to conduct all activities necessary to control and prevent pollution and to enhance the quality of environment
- to control, the volume, types, constituents and effects of wastes, discharges, emissions, deposits or other sources of emission and substances that can endanger the environment and its quality
- to conduct surveys, investigations and inspections with regard to environmental issues, complaints and pollution limits, and assist and co-operate with other individuals or organisations carrying out similar surveys and investigations.
- to compound offences.
- to stop, board and search any vehicle, ship or aircraft or enter any premises to inspect, examine and seize samples/evidence of pollution.
- to examine persons acquainted with the facts and circumstances of environmental cases.
- to conduct prosecution cases.
- to serve notices, orders, summons or documents required or authorised by the Act and its regulations.
- to test and prohibit use of vehicles.
- to request the assistance of any person in case of pollution or an imminent threat of pollution of the environment.

In order to execute the delegated powers the inspection officer shall:

- be fully familiar with the contents of the specific, personal authorisation issued by the DG
- carry this authorisation with him/her
- at request show the documentation and his/her identity card to prove his/her powers and responsibilities to any representative of an enterprise.

In accordance with the legislation the enterprise has certain rights and protection which correspondingly means some limitations to the powers of the officer. The most important rights and protection of the enterprise are the following:

- in case of a discharge or spillage certain defences may be considered
- an enterprise may obtain a contravention license that will grant an exemption from a specified article(s) of the EQA or subsidiary regulations
- an enterprise has on certain issues the right to appeal to the Appeal Board
- the inspection officer is not allowed to disclose any information on the manufacturing processes and trade secrets of an enterprise unless necessary for the purposes of the EQA

A list of the Regulations and Orders under the EQA pertaining to the control and regulating of industrial premises is annexed (Annex A).

Part III

The on-site inspection, basic requirements

Standard procedural steps

In this Part of the Manual, the basic DOE standard procedures for planning, performing and following-up of the on-site inspections are lined up, step by step.

The prescribed standard procedures shall normally be followed. However, individual cases may necessitate modified or even deviant approaches. Consequently, careful thought and good judgement shall always be applied when following and implementing the standard procedures.

The individual procedural steps are explained and commented in Part IV of the Manual that provides guidelines and good advice on proper practice.

3.1 Preparing and planning the on-site inspection

When preparing the on-site inspection:

- Clarify the objectives of the inspection and the type of inspection to be performed (Section 4.1.2, 4.1.3 and 4.1.4)
- Notify the staff (DOE and other relevant agencies) that shall participate in the inspection (4.1.2)
- Collect and study available files and other background information (4.1.5)
- Notify other agencies if necessary or appropriate (4.1.5)
- Prepare a program and a time schedule for the inspection (4.1.6)
- Prepare a checklist on the information that should be collected during the inspection visit (4.1.6)
- Ensure that sampling equipment and safety equipment is ready and operational (4.1.7)
- Notify the enterprise if necessary or appropriate (4.1.8)

3.2 Performing the on-site inspection

Before you go on inspection

- Prepare and plan your inspection carefully (chapter 4.1)
- Make sure that the documentation of your powers and responsibilities is in order (Part II and section 4.2.1)
- Make sure that you bring the necessary forms and the appropriate equipment for safety and sampling (4.1.7 and 4.2.4)

Once you arrive at the site for the inspection

- Introduce yourself correctly and present your authorisation card, if necessary (4.2.1)
- Make sure that a fully competent representative of the enterprise is present during the entire inspection visit (4.2.1)
- Establish as far as possible a good contact and an open dialogue with the representative (4.2.1)
- Explain your mandate and the purposes and program of the inspection visit carefully (4.2.1 and 4.2.2)
- Make yourself familiar with any environmental management system or other self-control of the enterprise, if any (4.2.2)

When you perform the actual inspection

- Use a detailed checklist as guidance for the inspection, but be flexible and alert to respond to unanticipated observations (4.2.3)
- Give special attention to potential hot spots such as storages for waste, chimneys and outlets for effluents and ventilation (4.2.4)
- Make special effort to avoid any safety risks (4.2.4)
- Notify the representative clearly of any non-compliances observed (4.2.5)
- Act promptly in case of any attempt of intimidation or bribery (4.2.5)
- Be open and willing to discuss and give advice as far as possible on technical and managerial improvements of the environmental performance of the enterprise (4.2.6)
- Conclude the inspection by a meeting to sum up and confirm all observations and agreements and to announce any further enforcement response (4.2.6)

3.3 Reporting and follow-up

After you return from the inspection

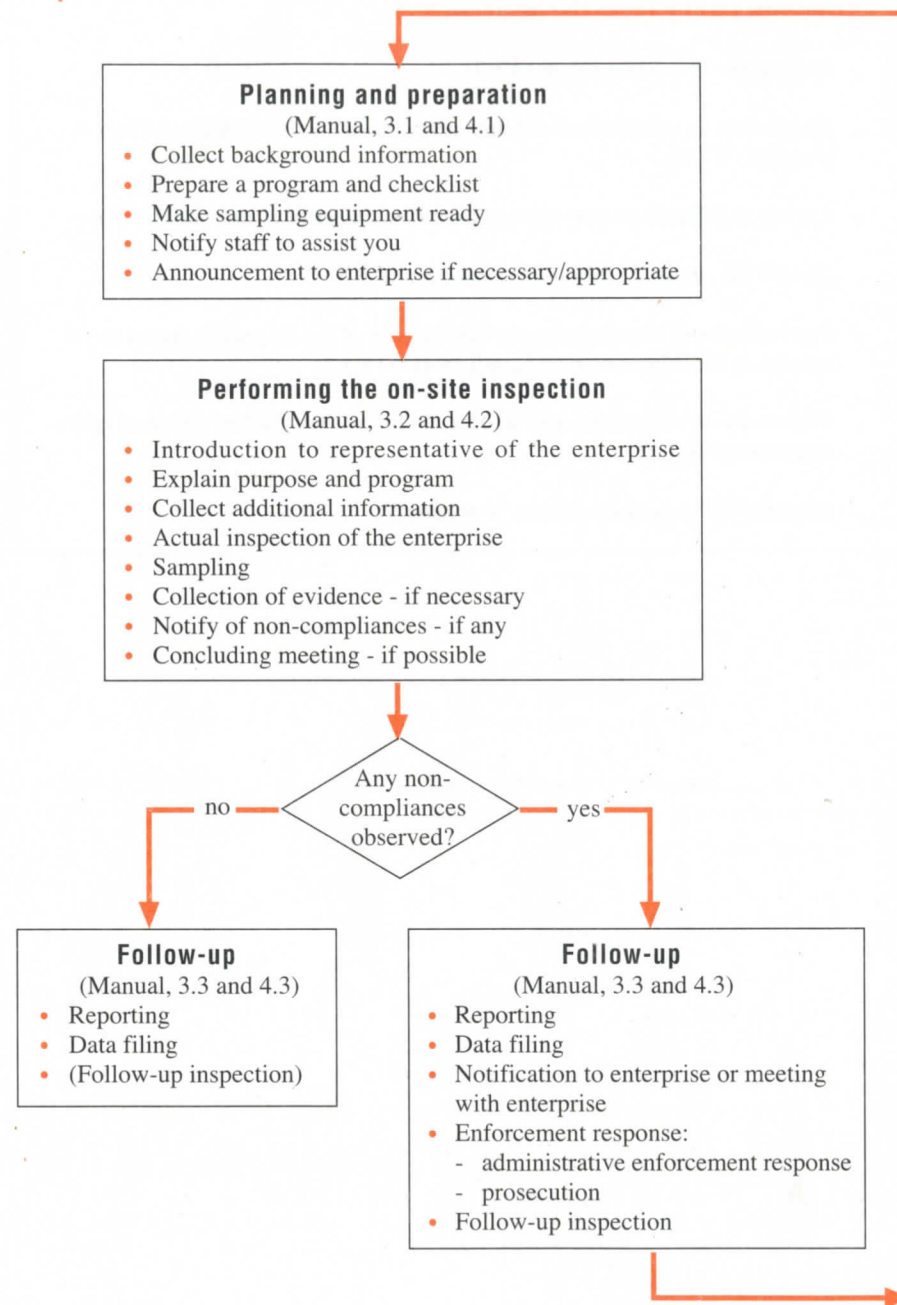
- Prepare the inspection report (4.3.2)
- Ensure that all information and data collected are documented and filed properly (4.3.2)
- Clarify and decide on any appropriate enforcement response (4.3.3)
- Assess the needs for follow-up inspection (4.3.4)
- Forward a letter summarising the conclusions of the inspection report to the enterprise for information and confirmation (4.3.2)
- Prepare an investigation paper in case the inspection shall be followed up by prosecution (4.3.5)
- Present your authorisation card, if necessary

3.3 Reporting and follow-up

After you return from the inspection

- Prepare the inspection report (4.3.2)
- Ensure that all information and data collected are documented and filed properly (4.3.2)
- Clarify and decide on any appropriate enforcement response (4.3.3)
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- Forward a letter summarising the conclusions of the inspection report to the enterprise for information and confirmation (4.3.2)
- Prepare an investigation paper in case the inspection shall be followed up by prosecution (4.3.5)
- Present your authorisation card, if necessary

Standard procedures for preparing and performing on-site inspections



Part IV

The On-site Inspection, how to do it

Guidelines and good advice on proper practice

Part IV gives some guidelines and practical advice on how to plan and prepare, how to perform and how to follow-up the on-site inspection. To assist the inspection officer, examples of reports and checklists have been provided and referred to. However, no amount of checklists can substitute careful thinking. The most important input to ensure the success of the on-site inspection is therefore the ability of the inspection officer to predict problems and to apply careful thought and good judgement.

4.1 How to prepare and plan the on-site inspection

4.1.1 Purpose and structure of planning

Proper, detailed preparation and planning of the individual on-site inspection is crucial for the quality and success of the inspection. The overall purposes of the preparation and planning are to ensure that:

- the DOE officer's time and resources is used effectively
- available background information is used in an optimal way
- the inspection will focus on all important aspects
- possible problems and conflicts are foreseen
- necessary staff is selected and notified
- relevant equipment is made operational for sampling and for safety measures

The planning shall be structured and carried out in a systematic way. The usual way to structure the planning is to use a checklist and to prepare a program and time schedule for the inspection.

4.1.2 Issues to consider initially

As the initial step of the detailed planning and preparation the following issues should be considered and clarified:

Objectives. What are the objectives of the specific inspection and what should the inspection accomplish? Are there any specific reasons for the inspection?

What type of inspection visit is appropriate to the objective? Is it a first time comprehensive inspection, a follow-up inspection visit, a routine walk through inspection, a sampling visit or an investigation to prepare for prosecution? (see also section 4.1.4). However, it should be kept in mind that all types of inspection may lead up to prosecution.

What kind of problems may be expected? Is it an enterprise that normally causes problems and that is not likely to co-operate with the authorities? Are there any complaints to be looked into and assessed? If so, consider how you will handle any difficult situation.

What kind of information is available for the planning? Has DOE already sufficient information and data on the enterprise? Will it be necessary to collect more information beforehand either from the enterprise or from other authorities? – if so, from which sources? – and how long time will it take?

Staffing and equipment. Who shall participate in the inspection and consequently be notified in due time. What kind of equipment will be necessary for safety purposes and for sampling? Is the equipment available and operational with short notice? Who shall be responsible for collecting and checking the equipment?

Announcements. Are any announcements to the enterprise or to other agencies/authorities necessary? If so, when should the announcement be made and how?

When the above issues have been clarified preliminarily, the inspection officer will have a clearer picture of the actual inspection and the detailed planning can start. Each of the above issues should be dealt with in more detail during the detailed planning.

4.1.3 Objectives of the inspection

The objectives of the inspection will influence the planning and the activities to be performed before, during and after the inspection. It is therefore important to clarify the specific objectives as early as possible.

The overall objectives for the inspection will normally be several of the following, although, the priority and weighting may vary considerably from case to case:

- to check compliance with the EQA and subsidiary regulations
- to ensure that remedial action is taken and appropriate enforcement response is applied in cases of non-compliance
- to demonstrate DOE's commitment to enhance and protect the environment and ensure fulfilment of the EQA
- to identify environmental problems and make the enterprise aware of such problems
- to collect information on the environmental problems and performance of the enterprise and of the potentials for better housekeeping and introduction of cleaner production processes
- to promote a general understanding of the importance of environmental management and to provide advice if possible on better housekeeping and cleaner production

More specific objectives of an on-site inspection may be:

- to investigate complaints received by DOE
- to check self-control and self-monitoring conducted by the enterprise
- to check fulfilment of injunctions issued or agreements made during a previous inspection
- to take specific samples
- to collect evidence for prosecution

4.1.4 Types of inspection

The objectives of the inspection will determine the type of inspection necessary. The type of inspection in turn determines the detailed planning of the inspection visit. Usually there will be a remarkable difference between the scope and detailing of the first comprehensive inspection and the later inspections (routine walk-through and follow-up inspections). Consequently, it is necessary to define which of the following inspection types to apply in the individual case.

The types of inspection listed below can be classified as the main types. However, in many cases it may be appropriate to implement a modified version of one or more of the listed types or a combination thereof.

1. **Comprehensive inspection.** This inspection is a very detailed and thorough inspection to check compliance of all relevant parameters and requirements. It will normally imply sampling. It will also be used to collect appropriate information on the production and the environmental performance of the enterprise for identification of hot spots/potential environmental problems. This kind of inspection should be planned carefully to ensure a successful result. A first time inspection will often be of this type.
2. **Routine walk through inspection.** This kind of inspection is mainly applicable to enterprises that are already known and, according to previous experience, are expected to be in compliance. The inspection may focus on previously identified potential hot spots and environmental problems.
3. **Sampling inspection visit.** The main purpose or sole purpose is to conduct sampling. Often this kind of inspection is a follow-up of a routine inspection.
4. **Complaint investigation inspection.** The primary purpose is to check if there are any substantial reasons for the complaint. As complaints may not necessarily be very specific or precise the inspection may in some cases be rather comprehensive. The inspection will normally imply sampling.

5. **Investigation as background for prosecution.** This kind of inspection implies very thorough inspection and collection of evidence e.g through sampling, interviews and copying of documents.
6. **Follow-up inspection visit.** The purpose is normally to check if the enterprise has complied with any enforcement response issued previously.
7. **Pre-operation inspection.** The main purpose of this kind of inspection is not enforcement as such but collection of data and information to be used for the assessment of an application for licensing (EQA, section 18) or for approval of plans for construction and alterations (EQA, section 19 and 20). However, the results of the inspection may well be used for enforcement as well.

Characteristic activities for the individual main types of inspection

Inspection type \ Planning and inspection Includes	Review of file data	High level of detail needed in the planning	Bring sampling kits and relevant forms	Interviews with managers	Interviews with neighbours
1. Comprehensive Inspection	+	+	+	+	+
2. Walk-through Inspection	+		+	+	
3. Sampling Inspection visit	+		+		
4. Complaint Investigation	+	(+)	+	+	+
5. Investigation for prosecution	+	+	+	+	+
6. Follow-up Inspection visit	+		(+)	+	(+)
7. Pre-operation Inspection	+	(+)	(+)	+	

The planning activities and issues described in the following refer in general to comprehensive inspections. Other inspection types may need less elaborate or modified planning procedures.

4.1.5 Background information

One of the important tasks before the inspection is to collect sufficient background information. The sources of the background information may be internal as well as external.

The relevant and available DOE background material shall be studied specifically for the inspection officer to get a perception of the potential environmental problems, hotspots and general environmental performance of the enterprise. Having a clear notion of what to expect and where the potential problem areas are will prepare the inspection officer for a professionally implemented inspection visit.

For inspection purpose basic data shall as far as possible be recorded on:

- location
- land use and sensitivity of surrounding areas
- environmental requirements of specific relevance for the enterprise and its production such as:
 - general requirements defined in EQA and relevant regulations
 - specific requirements defined in licenses and approvals issued by DOE if any
 - specific requirements, agreements and any other enforcement response as a consequence of previous inspection visits
- formal status with regard to licensing and EIA
- production process (type, quantities, flowchart operation hours)
- raw materials used (type, quantities)
- generation of waste (types, characteristics, quantities)
- actual outlets (location, characteristics, quantities)
- complaints (issue and reasons, plaintiff)
- observations at previous inspection visits
- environmental management systems, if any

The amount of data and information needed will vary considerably from case to case depending on the size of the enterprise and whether it is a well known and previously inspected enterprise. In some cases of first time inspections the amount of data available before the inspection may be very limited. In such cases it may be useful to request some basic information in advance from the enterprise.

Internal sources of information

The internal sources of information may be DOE files on the enterprise in question such as:

- EIA reports
- site suitability evaluation reports
- licensing (prescribed premises and/or contravention licensing)
- approvals (new sources of effluents or discharge, fuel burning equipment, incinerator)
- complaints
- investigation
- previous inspection reports
- current directive

In addition to existing files on the enterprise in question DOE may have other material which may be of use for the inspection such as:

- maps and GIS data
- data from general surveys and investigations

DOE has developed specific guidelines for various kinds of industrial enterprises and production. A list of existing guidelines is annexed (Annex B). If the enterprise in question is covered by such guidelines the DOE Inspection officer should ensure that he is familiar with the contents. The guidelines will be useful for the Officer when considering the environmental problems that may be expected and the technical solutions that may be relevant and advisable.

As a supplement to this manual a series of Industry Specific Information Handbooks is currently being developed for a number of industries that are typically causing environmental problems. A list of existing Handbooks is annexed (Annex C). The Handbooks provide information on the production process and the most common environmental problems of such industries. The Handbooks also describe feasible technical solutions and give advice on relevant cleaner technologies. Consequently, the Handbooks will be useful for the preparation of inspection visits to any of the industries in question.

To the extent obtainable the above information will give a picture of the environmental performance of the enterprise and it may ease the identification of potential hot spots. In this way the information will contribute to the programming of the inspection.

Other information that should be made available or clarified for more administrative purposes is:

- Names of contact persons of the enterprise
- Names and correct addresses of responsible manager(s) or owner(s)
- Material and data from the enterprise's own pollution control, if any

External sources of information

Depending on the actual case it may be relevant and useful in some cases to request background information from other authorities such as the authorities listed below:

External sources of information	Information for inspection purposes
<ul style="list-style-type: none">• The District Land Office	Location, lot no., land use of surrounding areas, land owner
<ul style="list-style-type: none">• The Drainage and Irrigation Department	Layout of drainage system, discharge points
<ul style="list-style-type: none">• The Health Department	Type of health problems, number of people affected
<ul style="list-style-type: none">• The Department of Fire and Rescue Services	Observed problems and causes
<ul style="list-style-type: none">• The Fisheries Department	In complaint cases: Location of incident, damages, potential sources
<ul style="list-style-type: none">• The Marine Department	Observed problems and likely causes
<ul style="list-style-type: none">• The Department of Occupational Safety and Health	Licenses and approvals, e.g. boilers and reactors, status of hazard installations
<ul style="list-style-type: none">• The Local Authority	Operation/premises licenses, plan of buildings and constructions, plans of interiors of buildings
<ul style="list-style-type: none">• The State Government, EPU	Approvals, plans for future development
<ul style="list-style-type: none">• MIDA	Ownership, year of establishment, capacity, capital
<ul style="list-style-type: none">• Police Air Wing	Observed problems and likely causes

If the enterprise is using an environmental consulting company, this company may facilitate the collection of information on all environmental issues of relevance for the enterprise.

4.1.6 Draft program and checklist

Based on the collected and compiled background information and on relevant DOE guidelines, the following questions shall, as far as possible, be clarified before the inspection visit:

- *Is the enterprise likely to have environmental problems that are common for this particular type of enterprise?*

- *Which other environmental problems may be expected?*
- *Is the enterprise at the lower level as to environmental performance?*
- *Is the enterprise likely to co-operate?*
- *Are there any known or likely health risks for employees of the enterprise?*
- *Are there any nuisances for the neighbours?*
- *What kind of sampling will be necessary and/or relevant?*
- *Which parameters to analyse?*
- *Will there be any potential safety risks for the DOE inspection officers during the inspection visit?*
- *What kind of technical solutions (for example cleaner technology) may be relevant, advisable and realistic in the actual case?*
- *Shall other agencies or authorities be announced and requested to participate or contribute to the inspection?*

Based on the above considerations the practical preparations shall be initiated by the DOE Officer. These preparations include:

- decision on date and time for the inspection visit
- preparing a draft program and time schedule and a checklist for the inspection
- notification of other staff to participate in the inspection visit
- notification of other departments or agencies if their assistance or contribution is necessary
- making sampling equipment and other relevant equipment ready and ensuring that it is in good working condition and calibrated correctly
- notification of the enterprise if necessary or appropriate

Draft Program

The draft program shall ensure an organised step-by-step approach to the performance of the inspection. The program shall stipulate specific sites, potential hotspots, important installations and other key areas to be checked. The program shall also indicate which samples should be taken and how. For a comprehensive inspection visit it will be standard procedure that the sequences of the inspection will follow the production line. However, some flexibility of the program is also important to allow the inspection officer to adapt to unanticipated situations and observations.

The program shall outline a time schedule for the main activities of the inspection. The time necessary for the inspection shall preferably be assessed as precisely as possible to ensure that sufficient time is allocated. The program for the inspection visit may be modified as appropriate and agreed on during the introductory discussions with the representative of the enterprise (see section 4.2.2).

Checklist

Based on the objective of the inspection, the above considerations and the collected background information a checklist can be prepared. The checklist shall as far as possible ensure that all necessary information is collected and that all important issues are checked and recorded in a structured way during the inspection. The checklist shall of course be adapted to the actual case. However, most of the issues and components of the checklist will be common for all inspection visits to similar types of industries. Consequently, a standard checklist can normally be used with modifications as appropriate. However, checklists should be a result of, not a substitute for careful thought. (See annexes E and F)

4.1.7 Equipment

Sampling and measurements will normally be an integrated activity of more comprehensive inspection visits. Sampling and measurements will also be relevant for investigation visits (in cases of complaints or preparation for prosecution). Finally sampling and measurements may be relevant in some follow-up inspections when checking compliance with the enforcement response of the previous inspection.

The scope and type of sampling and measurements necessary will depend on the actual production and the problems expected. Sampling and measurements may comprise air emissions, effluents, noise and storage and handling of scheduled waste. Relevant sampling equipment may include the following:

- Air** : Gas analyser, stack sampler
- Water** : Effluent sampling kit including i.a. plastic bottles, glasses, tubes, preservation chemicals, seals
- Waste** : Scoop, gloves, container
- Noise** : Type II noise level meter

It is important to make sure that the equipment is available on the date scheduled for the inspection, and that the equipment is complete and fully operational. Also the equipment should be calibrated in accordance with the respective technical manuals. The inspection officer shall of course ensure that either he or another member of the inspection team is fully familiar with the use of the equipment.

Also the officer should prepare for correct handling and transport of the samples by bringing appropriate, clean containers (glass or plastic bottles), means for preservation (ice storage) and proper labels for tagging. A proper label will normally provide for the information as shown in the example below.

Sample no.	
Date	
Time	
Office / sampler	
Type of sample	
File no. / reference	

In case of any doubt the Chemistry Department should be contacted in advance to ensure that the correct procedures for collecting and handling of samples are complied with.

Other equipment to be prepared for the inspection visit may include a camera and safety gear such as hard hat, gloves, boots and goggles. Other personal equipment for the inspection officer will include uniform and identification card.

A list of relevant equipment and documents is annexed (Annex D).

4.1.8 Announcements

Normally inspections are not announced in advance as the announcement is not a formal requirement (except for pre-operational and pre-siting evaluations, pre-licensing and certificates of fitness). However, a prior announcement may ensure that necessary assistance and information is available for the inspection, especially when sampling is needed. In some cases it may even be useful to request some of the material (e.g. data from self-monitoring) to be forwarded to the inspection officer beforehand.

An announcement may be given in a letter or through a telephone call. The announcement shall give information on the date and time period for the inspection. It shall also specify which kind of information shall be made available by the enterprise. Finally, the announcement shall request a competent and responsible representative to be present during the entire inspection visit.

An announcement may cause some enterprises to try to cover up any offence or give excuses to postpone the inspection. If this is likely to be the case, then the announcement shall either be avoided or given with very short notice.

In accordance with section 38 of the EQA an inspection visit may be performed without a warrant in cases where there are reasons to believe that an enterprise or a person has committed an offence under the EQA.

4.2 How to perform the on-site inspection

4.2.1 Introduction and general information to the enterprise

Upon arrival at the enterprise the inspection officer shall:

- introduce himself
- exhibit his identity card including the DOE authorisation to conduct inspection
- ask for permission to enter the premises of the enterprise and to take the DOE car into the premises
- sign the visitor's book, if required
- ask for a responsible representative to be present (If an appointment has been made in advance reference shall be made to this appointment.)

All on-site inspections shall start with an introductory meeting with the responsible representative of the enterprise. If the enterprise has assigned an environmental manager he should attend the introductory meeting, and participate in the inspection visit and the concluding meeting.

The inspection officer shall from the very beginning of the inspection visit establish a good contact and open dialogue with the representative of the enterprise based upon an atmosphere of mutual respect and understanding. The attitude and behaviour of the inspection officer shall be courteous, yet firm and correct.

During the general introduction the inspection officer shall inform the representative of the enterprise about:

- The purpose of the inspection visit
- The technical requirements of the EQA and subsidiary regulations of specific relevance for the enterprise

If the representative of the enterprise is not familiar with the responsibilities and powers of DOE the inspection officer shall also give general information on the following issues as necessary:

- the role and responsibilities of DOE
- the powers and responsibilities of the inspection officer, i.a. the formal rights to request information and material from the enterprise (see Part II) •
- the rights to take samples and photos and to collect other evidence as necessary (see Part II)
- the rights of the enterprise (see Part II).

4.2.2 Program for the inspection visit

Subsequent to the general introduction the inspection officer shall explain the background for the inspection and his own ideas and wishes as to the inspection visit. (See sections

4.1.3 and 4.1.4 on objectives and types of inspections). The program and overall time schedule for the visit that has been prepared during the planning stage (see section 4.1.6) shall be introduced to the representative and discussed if necessary. It shall be agreed with the representative that he will participate in the entire inspection visit. It shall also be agreed that the inspection visit shall be concluded by a short meeting to clarify and ensure a common understanding of the conclusions of the inspection and to ensure that any agreements or statements made are properly documented.

It shall be clarified if the enterprise has introduced any kind of environmental management system or whether the enterprise for other reasons is conducting properly documented self-monitoring and self-control. If so, the program shall focus on one or more of the following issues:

- is the environmental management system and/or self-monitoring in accordance with current approvals or licences?
- is the environmental management system being properly implemented?
- has required pollution monitoring or control equipment been installed?
- is the equipment being correctly operated? (Check operation records)
- are records of self-reported data properly prepared and maintained? (Check data records)
- is the enterprise properly conducting any required sampling and analysis? (Check records)
- are the data collected sufficient and do they seem to be reliable? (Check trends)

Depending on the results of the above assessments and considerations the preliminary program for the inspection officer's inspection visit may be modified substantially (e.g. the need for sampling may be less than anticipated).

When the program has been discussed and agreed with the representative it may be of interest to clarify a few more questions before starting the actual inspection, such as:

- has the enterprise any current plans with the aim to improve the environmental performance of the enterprise? Have concrete steps or initiatives been taken?
- does the enterprise use any environmental criteria when selecting suppliers, raw materials and catalysts?
- is the market for the products of the enterprise in any way influenced by concern for the environment?
- are the consumers expectedly worried for environmental impacts of the goods manufactured or the services provided by the enterprise?
- has the staff of the enterprise been trained or briefed on environmental issues

The answers to the questions may give the inspection officer a clearer picture of the interest and willingness of the enterprise to improve its environmental performance, e.g. to introduce cleaner technologies or to invest in cleaning devices as appropriate or any other remedial measures.

4.2.3 Checklist and collection of inspection data

During the inspection visit, the inspection officer shall collect data and information on all aspects of importance to assess the compliance and the environmental performance and problems of the enterprise including i.a. formal sampling. A checklist prepared in advance (see Annexes E and F) will normally be a useful tool to ensure that no vital issues are forgotten and that information and data are collected in a structured way. As a general rule the checklist shall include all information necessary to check compliance with the environmental requirements as defined in the EQA, in specific regulations and in individual licenses, approvals and EIA reports.

Depending on the information collected during the introductory meeting with the representative of the enterprise, it may be appropriate to modify the already prepared checklist to make it fit the needs of the actual inspection as closely as possible.

In addition to collecting the data and information specified in the checklist the inspection officer shall be observant and pose all relevant questions on the production and the operations and equipment/machinery of the enterprise. The aim shall be to collect as much relevant information as possible to facilitate the dialogue with the enterprise. This may also ensure a better common understanding of the environmental problems and performance of the enterprise. However, as a general rule, such questions shall be limited to what may be relevant in terms of environmental performance and management.

Examples of relevant questions to pose to the representative during the inspection may be:

- Has the production process or the composition of products been changed recently?
- What are the approximate amounts of waste generated - and how is waste managed, handled and disposed of - and what is done to minimise waste production?
- Does the enterprise make any specific records of the waste produced?
- Has any recycling or reuse of waste been initiated?
- Does the enterprise generate any scheduled waste, and if so, can any documentation be presented (scheduled waste inventory, consignment notes etc.)
- How is energy consumption controlled?
- Has anything been done (or considered done) to reduce energy consumption?
- Can the consumption of water be reduced?
- Can any water used in the production process, e.g. for cooling purposes, be recycled?
- Has the enterprise developed any plans for environmental emergencies - have they been used or tested?
- What is done to avoid emergencies and uncontrolled outlets or discharges?

4.2.4 What to look for - issues and areas of special interest

If the inspection is a comprehensive compliance check, the step-by-step performance of the inspection will normally cover and follow the flow of the production line. All areas, installations and constructions of relevance shall as far as possible be visited and checked. Monitoring equipment of the enterprise shall be checked with regard to quality, operation and maintenance

The checklist prepared in advance will serve as guidance for the visit and ensure that relevant installations, machinery and constructions are seen and checked. However, it is still important for the officer to be flexible, observant and alert to react and respond to any unanticipated observations.

Special attention shall be given to assumed potential problem areas such as:

- illegal by-pass
- outlets for sewage / effluents
- outlets for ventilation and fume
- storages of waste and chemicals
- batch treatment systems
- disposal systems
- roofs (hidden outlets of ventilation)
- distant corners behind waste containers and sheds.

The potential problem areas, that may be sources of illegal discharges, varies and depends on the actual character and type of production and industry. More detailed information on the potential environmental problems of some specific industries and productions can be found in the Industry Specific Information Handbooks that have been developed as a supplement to this manual (see the annexed list, Annex C).

During the inspection visit effort shall be made to avoid or limit any potential safety risks for the inspection officer and his/her assistant(s). During the entire walk-through the inspection officer and his/her assistant(s) shall wear hard hat and safety shoes. When necessary or appropriate other safety equipment, such as gloves, goggles etc., shall also be used (see the list of standard equipment, Annex D).

4.2.5 Observations of non-compliances

The basic objective of the on-site inspections is to bring about compliance with the EQA and subsidiary regulations in as smooth and resource efficient manner as possible. To this end the inspection officer must exercise his own judgement as to what constitutes an appropriate enforcement response to observed non-compliances.

As a general rule non-compliances shall be handled in a prompt and effective way. The inspection officer shall:

- announce and explain the observed non-compliance to the representative
- inform the representative that the non-compliance will be recorded in the inspection report
- explain that DOE will ensure that appropriate enforcement response is issued
- collect any evidence that may be obtainable
- make sufficient notes, sketches and photographs to use for preparing the correct, detailed inspection report (see section 4.3.2)
- give the representative the opportunity to explain the reasons, if any, for the observed non-compliance
- ask the representative to suggest a remedial action to be taken by the enterprise

In case of a compoundable offence the representative shall also be informed accordingly. A list of compoundable offences is annexed ([Annex G](#), see also [section 4.3.3](#)).

Proper evidence to prove a non-compliance may be:

- correct, detailed notes on actual observations
- statements of witnesses
- statement of the offender
- photographs
- correct samples
- copies of documents or data files.

The inspection officer shall carefully assess the character, quality and reliability of any evidence and documentation collected. E.g. it is important to ensure that samples and analyses are handled and processed in accordance with prescribed standard procedures and using correct equipment and authorised laboratories. Collected samples and seized equipment and documents shall be tagged as appropriate (see section 4.1.7).

In case the inspection officer observes any non-compliance in relation to other legislation the officer shall notify the agency or authority responsible for enforcement of this legislation. In general it is important to establish a good informal co-operation with other agencies and authorities with the overall aim to assist each other in strengthening the enforcement activities.

Potential conflicts

Observations of non-compliances may in some cases lead to unpleasant discussion or even conflicts with the representative of the enterprise. This should as far as possible be avoided, limited or stopped fast by the inspection officer using his experience and skills of negotiation. As a general rule it is important to remain cool and to be fully informed and knowledgeable about the inspection officer's formal rights. The officer shall avoid

offending anybody. Consequently, he shall refrain from making any unnecessary comments or to behave like an executioner or judge. In general his behaviour shall be courteous, yet firm.

If the inspection officer becomes subject to intimidation or to any attempt of bribery the reaction shall be promptly to inform the representative that the case will be reported to the police and / or the Anti-Corruption Agency (ACA). If necessary the inspection officer may require the assistance of the police to ensure that sufficient samples or other evidence can be collected.

More detailed discussions with the representative on remedial actions, administrative enforcement response (see section 4.3.3) and agreements with the enterprise shall as far as possible be held during the concluding meeting subsequent to the inspection walk-through or at a later meeting announced to be held at DOE's office.

4.2.6 Concluding the inspection

The inspection visit shall normally be concluded by a meeting with the representative of the enterprise. If the representative who has been participating in the inspection has no sufficient mandate from the enterprise, the enterprise shall normally be called for a concluding meeting at the DOE Office at a later date.

The main purposes of the concluding meeting are:

- to sum up the observations and findings of the inspection officer
- to ensure a common understanding on the findings of the inspection officer and that any misunderstandings are avoided
- to clarify and confirm any agreements made
- to issue compounds if necessary (an example of a formal offer to compound is annexed, Annex H)
- to announce any other formal follow-up by DOE as response to non-compliances
- to obtain a formal receipt confirming evidence and other material collected and the findings and conclusions of the inspection visit.
- to enhance the awareness of the enterprise
- to discuss informally possible improvements of the environmental performance of the enterprise
- to arrange for a follow-up visit if necessary

In cases of non-compliances the inspection officer and the representative of the enterprise shall as far as possible, through discussions and by use of clear evidence, reach an agreement that there has been a violation.

In cases of serious non-compliances, that shall be followed up by prosecution, the inspection officer shall avoid involving himself in any further discussion that could compromise the credibility of the prosecution or in other ways cause difficulties for the implementation of the correct enforcement response.

In some cases of non-compliances it may be sufficient at the concluding meeting to give a statement on the observed offence and to announce that further enforcement response will be issued by DOE. This will allow for the inspection officer to consider the best proportionate enforcement response and to ensure that the response is in accordance with current DOE practice and strategies.

The inspection officer shall prepare a list of all evidence collected. The list shall be signed by the inspection officer and the representative of the enterprise. Furthermore, a formal receipt confirming the inspection visit and the conclusions made shall be signed.

In many cases it will be relevant and useful to have informal discussions with the representative on possible technical or managerial solutions to the environmental problems identified. Often the environmental problems or the misconduct of the enterprise is caused either by negligence or through lack of knowledge. Consequently, some good advice from the inspection officer may in many cases lead to a substantial improvement of the environmental performance of the enterprise without necessarily involving any remarkable extra costs for the enterprise. In some cases the enterprise may even have an advantage of the modified production process or equipment.

Over the years, the inspection officers will usually obtain considerable knowledge on environmental management issues of a variety of enterprises. Such knowledge may help the inspection officer to give the enterprise some pointers on environmental management.

The balance between performing the advisory role and representing the environmental authority as an inspection officer is in some cases demanding and the success will often depend on the experience and the technical knowledge of the inspection officer. The Industry Specific Information Handbooks that have been developed as a supplement to this Enforcement Manual, are prepared specifically to provide support for the inspection officer in such discussions.

4.3 How to do reporting and follow-up

4.3.1 Purposes and tasks of proper reporting and follow-up

The main purposes of the reporting and follow-up are to ensure that:

- all information and data collected is registered, filed and used appropriately
- further action is taken to ensure correct and sufficient enforcement response with the aim to enhance compliance
- the enterprise becomes aware of and understands the requirements for their environmental performance
- DOE's general commitment to enforcement of the EQA is demonstrated.

The most important tasks for a systematic and correct follow-up are:

- to prepare a structured inspection report
- to issue the correct enforcement response
- to assess the need for a follow-up inspection visit.

4.3.2 Purpose and contents of the inspection reports and other data recording

Ordinary inspection reports

The inspection officer shall prepare an inspection report as soon as possible after his return from the on-site inspection.

The purposes of the inspection report are to record and present:

- the results of the inspection
- the information and data collected during the inspection visit
- other information of importance for enforcement and follow-up (e.g. names of owner, type of production)
- the conclusions of the inspection (e.g. compounds issued, recommendations for further action, agreements made)

The final inspection report is a formal, official document and shall be of a quality that allows it:

- to serve as documentation and evidence in case of prosecution.
- to be used for planning of future inspection visits and other enforcement activities.
- to be used in connection with assessment and review of future applications from the enterprise.

Consequently, it is crucial that all information and data included in the report are correct and presented in a clear and structured way.

The inspection report shall be based on the material and information collected during the planning of the inspection visit and during the performance of the on-site inspection.

As a minimum an inspection report shall contain the following information:

Background information:

- names of inspectors
- date and time of the inspection visit
- name and location of the enterprise subject to the inspection
- objectives of the inspection
- the production/process of the enterprise, specifically the actual production (capacity and intensity) at the time of the inspection
- the participants in the inspection
- the program for the inspection

Findings:

- all observations and findings of importance for assessment of non-compliances, if any
- any specific actions taken / any compounds issued / any other enforcement response (injunctions, warnings etc.)
- any agreements made
- any evidence obtained (statements of witnesses and/or the representative, seized documents, photographs etc.)
- any samples taken and results of analyses

Conclusions:

- recommendations with regard to follow-up activities (enforcement response, follow-up inspection visits)

An example of a standard format for an inspection report is annexed (**Annex I**).

When the inspection report has been completed a letter summarising the report shall normally be forwarded to the enterprise for information and confirmation. The letter shall specifically clarify and document:

- the conclusions of the inspection with regard to observed non-compliances and/or any improvements since last inspection visit
- any agreements or other enforcement response issued on-site during the inspection
- any additional enforcement response decided by DOE
- the terms for fulfilment of any enforcement response issued by DOE
- a request for the enterprise to confirm the receipt of the letter and its intention to fulfil the specified requirements.

In some cases it may be necessary to request more information in writing from the enterprise before completing the inspection report and issuing the concluding summary to the enterprise. Often such a request may be handled by a quick phone call.

In addition to the reporting the inspection officer shall ensure that the data and information collected during the inspection is filed and recorded as relevant in the current DOE files and databases. It should as far as possible be ensured that the data is also available for other purposes (e.g. for overall environmental planning and management, for statistics and for general state of the environment reporting).

4.3.3 Enforcement response

All observed non-compliances must be brought in line with the formal requirements of the EQA and subsidiary regulations soonest possible. However, the enforcement response shall be proportionate to the severity of the non-compliance in question. Consequently, the enforcement response may vary substantially from case to case.

The 4 main levels of enforcement response are:

- Administrative enforcement response
- Compounds
- Prohibition Order
- Prosecution

Prosecution shall normally only be used in cases of serious and / or deliberate violations of the environmental legislation. It is necessary to set priorities in a consistent way when selecting cases for prosecution because:

- Prosecutions are usually resource demanding
- Clear concrete evidence is necessary for a successful result
- Lost cases will not enhance the respect of the public and the industry with regard to environmental law and management

The formal requirements with regard to the preparation for prosecution are dealt with in more detail in section 4.3.5.

Prohibition orders are issued with immediate effect in cases of serious non-compliance causing considerable irreversible pollution and/or serious threat to public health or safety. A prohibition order will in many cases imply considerable costs for the enterprise. It must therefore be based on very clear evidence.

Compounds are only applicable for violations defined as being compoundable offences (see Annex G). Clear evidence is conditional for the issue of a compound. In cases of minor offences it shall be assessed whether it is appropriate and necessary to issue a compound.

Administrative enforcement response is the most common way to proceed in cases of offences. There are different levels of administrative enforcement responses. Consequently, administrative enforcement response allows for a flexibility to meet the general principle of proportionality.

The different levels of administrative enforcement response are shortly explained in the following in order of increasing severity:

- *De facto legalisation.* In cases of minor, but formal non-compliances the offender is requested to submit an application to DOE within a specified deadline in order to obtain the necessary approval, license or contravention license or to obtain the necessary amendment or updating of a previously issued license or approval.
- *Recommendation / agreement.* The inspection officer gives his recommendations as to how to solve the identified environmental problem or non-compliance and an agreement is reached with the offender. The agreement shall define a clear deadline for the enterprise to solve the problem and thus become compliant.

- *Deadline extension.* If a previously defined and agreed deadline for a corrective measure has not been complied with it may be sufficient to agree on an extension of the deadline, if there is a good reason for it.
- *Warning.* In cases of repeated relatively minor offences or similar apparent lack of respect for the environmental requirements, a warning can be written defining a clear deadline for the enterprise to become fully compliant.
- *Injunction (notice in writing).* An injunction may imply either cessation or modification of a specific process or a clearly specified remedial measure e.g. introduction of a cleaning process (the requested effect level to be specified) to allow for effective control. An injunction shall always clearly define the deadline for its fulfilment.

4.3.4 Assessment of needs for follow-up inspections

The first inspection visit will normally be a comprehensive inspection covering the entire enterprise and its production. Depending on the findings and observations during the comprehensive inspection visit, the need and frequency of follow-up inspections shall be assessed carefully.

If any non-compliance has been observed during the comprehensive inspection and proper enforcement response has been issued, a follow-up visit shall normally be conducted. The main purposes of the follow-up inspection visit will be:

- to check that the enforcement response has been complied with
- to check that the enterprise now is in full compliance with all relevant environmental requirements
- to supplement the first comprehensive inspection visit as appropriate if this first visit for any reasons has not covered all aspects and all parts of the enterprise and its production.

If a follow-up inspection shows that the enterprise has not complied with a previous enforcement response a new, clear enforcement response shall be issued. Unless there are very good reasons for the non-compliance this enforcement response shall be more severe. Another follow-up inspection shall be planned to check the compliance and to demonstrate DOE's commitment to enforcement of the EQA.

If the follow-up inspection actually confirms that the enterprise is performing well from an environmental point of view and is in compliance with environmental requirements, then the frequency of further follow-up inspections may be reduced. The main purpose of future inspections will in such cases be to check whether any changes of production or installations have taken place. And if so whether such changes have any implications on the environmental performance.

The planned frequency and level of details of inspection visits shall normally be revised:

- in cases of complaints
- if it is apparent or likely that the character and scope of the production and activities of the enterprise has changed or will change significantly.

4.3.5 Investigation papers

If a non-compliance is serious enough to be prosecuted, the follow-up will include the preparation of an investigation paper (IP). The IP shall be prepared based on the inspection report and the evidence collected. A thoroughly developed inspection report will be the base for the investigation paper or it may even constitute the investigation paper.

The main purpose of the IP is to facilitate the prosecution by describing the facts and the evidence of the case systematically and by listing the witnesses and their statements.

When preparing the IP it is important for the officer:

- to understand and analyse the case
- to identify precisely the offence(s)
- to assess the seriousness of the offence(s)
- to reconstruct the case in sequences from the beginning and to be able to mentally prepare a scenario of the whole case
- to conceptualize the essence of the case in the form of a flow chart
- to identify the persons who have violated the law, and identify witnesses who will assist in proving the case against the offender(s)
- to have (and use) an imaginative, inquisitive and searching mind, patience, and last but not least, common sense.

The structure and contents of an IP may differ from case to case. However, the standard contents will normally be as follows:

- i) *A minute paper* describing the case in a brief, concise, systematic and chronological way
- ii) *A summary of evidence* of each witness
- iii) The facts of the case. The presentation of the facts of the case should be based on clear references to the supporting statements, diaries, documents and other evidence
- iv) *A copy of the charge*. If the charge is amended, a copy of the amended charge shall be enclosed. The charge must contain the following particulars (see section 152 and 153 of the Criminal Procedure Code):
 - Date and time of offence
 - Place of offence
 - Nature of offence
 - Offence committed against whose property
 - Section of law

- v) A *copy of the consent to prosecute* issued by the Public Prosecutor
- vi) The *police report*, if any. The EQA does not require a police report to enable an investigation to be carried out. However, where reports are lodged by members of the public, or where any report is lodged by DOE officers in the course of investigation, a copy of the report should be enclosed the IP.
- vii) *Statements of witnesses* and suspects under section 38A of the EQA.
 - Statements shall be read and signed by the examined person.
 - All cancellations or amendments shall be initialed by the examiner and the examinee.
 - When any information is recorded with reference to any document, a note shall be made that the document has been shown to the witness.
 - Statements of witnesses shall be as clear as possible and corroborate as closely as possible. Efforts shall be made to clarify on points that differ from one statement to the other.
 - Where a suspect gives an alibi or a possible defence in his statement, the investigating officer shall pursue to verify this.
- viii) The *investigation diary* should be updated properly with daily entry of procedures from the day of the assignment of the investigating officer in accordance with the requirements of section 119 of the Criminal Procedure Code.
- ix) The *documents* can be letters, plans and photographs. Original copies of letters should not be enclosed the IP. Photographs should be explained by markings and comments. Negatives should be kept safely.
- x) The *instruction sheet* records all specific instructions given by superiors and remarks given by subordinates on actions taken during the investigation.

Annex A

Regulations and Orders under the EQA

Environmental Quality (Prescribed Premises) (Crude Palm Oil) Order 1977

Environmental Quality (Prescribed Premises) (Crude Palm Oil) Regulations 1977

Environmental Quality (Licensing) Regulations 1977

Environmental Quality (Clean Air) Regulations 1978

Environmental Quality (Compounding of Offences) Rules 1978

Environmental Quality (Prescribed Premises) (Raw Natural Rubber) Order 1978

Environmental Quality (Prescribed Premises) (Raw Natural Rubber) Regulations 1978

Environmental Quality (Sewage and Industrial Effluents) Regulations 1979

Environmental Quality (Prescribed Activities) (Environmental Impact Assessment) Order 1987

Environmental Quality (Scheduled Wastes) Regulations 1989

Environmental Quality (Prescribed Premises) (Scheduled Wastes Treatment and Disposal Facilities) Order 1989

Environmental Quality (Prescribed Premises) (Scheduled Wastes Treatment and Disposal Facilities) Regulations 1989

Environmental Quality (Prohibition on the Use of Chlorofluorocarbons and Other Gases as Propellants and Blowing Agents) Order 1993

Environmental Quality (Prohibition on the Use of Controlled Substance in Soap, Synthetic Detergent and other Cleaning Agents) Order 1995

Annex B

DOE Guidelines

A. EIA Guidelines

A Handbook of EIA Guidelines, 1987 (revised 1995)

Industrial Estate Development, 1994

Petrochemical Industries, 1994

Groundwater and/or Surface Water Supply, 1995

Drainage and/or Irrigation Projects, 1995

Dams and/or Reservoirs Projects, 1995

Thermal Generation and/or Transmission Projects, 1995

Fishing Harbours and/or Land-Based Aquaculture Projects, 1995

Industrial Projects, 1995

Toxic and Hazardous Waste Treatment and Disposal Projects, 1995

Mines and Quarries, 1995

Municipal Solid Waste and Sewage Treatment and Disposal Projects, 1995

B. Land / Industrial Development Guidelines

Siting and Zoning of Industries, 1976 (revised 1994)

Prevention and Control of Soil Erosion and Siltation, 1978 (revised 1996)

Environmental Requirements: A Guide for Investors, 1996

Interim Guidelines for Controlled Burning of Felled Plant Materials and Combustible Solid Wastes from the Housing Industry in the Klang Valley, 1991

Code of Practice for Service Stations, 1980 (revised 1993)

C. Ozone-Depleting Substances Guidelines

Control Measures for Protection of Ozone Layer, 1994

Project Preparation under the Multilateral Fund, 1995

Prequalifying and Selection Criteria for Acceptable Alternatives of Ozone Depleting Substances in Malaysia, 1995

D. Waste Management Guidelines

Air Pollution Measures in Palm Oil Mills, 1977

Erection of Fuel Burning Equipment, 1981

The Selection of Landfill Sites for Scheduled Wastes, 1985

Monitoring of Landfills for Scheduled Wastes. 1985

Scheduled Wastes Sampling, 1985

Recommended Code of Practice for the Disposal of Solid Waste on Land, 1985

Disposal of Asbestos Wastes. 1991

Export of Scheduled Wastes, 1993

Storage of Scheduled Wastes, 1993

Interim Guidelines for the Transportation on Dangerous Goods (Chemical Not Otherwise Controlled), 1993

Import of Scheduled Wastes, 1994

Zero Burning of Felled Plant Materials, 1994

Open Burning of Felled Plant Materials (Agricultural Wastes) 1981, (revised 1994)

Management and Disposal of Wastes from Downstream Petroleum Industries, 1994

Management and Disposal of Wastes from Upstream Petroleum Industries, 1994

Notification and Control Procedure for Movement of Wastes between Singapore and Malaysia, 1995

Disposal of Asbestos Wastes, (revised 1995)

Guidelines on the Export, Import and Storage of Scheduled Wastes in Malaysia (CD ROM)

Annex C

DOE Industry Specific Handbooks in the series: Industrial Processes and the Environment

1. Metal Finishing - Electroplating, 1999
2. Raw Natural Rubber Industry (draft)
3. Crude Palm Oil Industry (draft)
4. Textile Industry (planned)
5. Food Processing Industry (planned)

Annex D

CHECKLIST OF EQUIPMENT AND DOCUMENTS FOR INSPECTION

No.	Common-pool Items (Essential)
1.	Road map / area map
2.	Camera (ordinary, digital or video)
3.	Camera films and batteries
4.	Rain coat
5.	Hard hat
6.	Safety goggles
7.	Respirator mask and filters
8.	Binoculars
9.	Gloves
10.	Safety boots
11.	First aid kit
Sampling equipment	
1.	Noise level meter
2.	Ringelmann chart + stand
3.	Glass and plastic bottles
4.	Polythene sample bags
5.	Sampling labels
6.	Wax sealer
7.	Drum opener
8.	Oil pump and rubber hose
9.	Pipet
10.	Multiparameter probe
11.	Probe and smokemeter
12.	Other sampling equipment
Common-pool Items (Useful)	
1.	Safety belt
2.	Global positioning system (GPS)
3.	Compass
4.	Security stick (to ward dogs)
Personalised Items (Essential)	
1.	Agency identification tag
2.	Handphone
3.	Recording book
Personalised documents (Essential)	
1.	Inspection checklist
2.	Approval checklist
3.	Receipt form
4.	Offer to compound form

Annex E

Potential components of checklist for on-site inspection of an industrial enterprise

1. Basic, administrative information

Name of enterprise
Address
Name of owner
Telephone/fax no.

Location
District
Zoning
Characteristic of the surroundings (land use, distance to neighbors etc.)

Contact person on environmental matters, (name and tel/fax)

Is the enterprise a prescribed premise (type, relevant sections of EQA and regulations)

Date and no. of license(s)/ approvals (see also the check list below of required approvals/permission/licenses)

Any previous inspections (date and references of inspection reports)

Previous administrative enforcement response (agreements/injunctions/warnings/prohibition orders/compounds)

Previous judicial enforcement response (prosecution)

Complaints

2. Short description of the enterprise

Number of employees
Total area (covered/uncovered)
Build up area
Area of production plant

Hours of daily operation (normal workdays/week-ends)
Annual/seasonal variation

When was the enterprise established?
Has the enterprise been in operation previously in other locations?

(Map of location, photos of the enterprise, plan of lay-out of production plant)

Production of the enterprise (type, amounts)

Description of production process including flowchart

Raw materials (name/type/amount used)

Catalysts (name/type/amounts used)

Machinery (type, brand, use)

Other technical facilities (ventilation, filters etc.)

Any plans for change and/or expansion of production)?

Annual turnover from production

3. Information on the enterprise and its impact on environment

Sources of noise:

Compressors

Air-driven tools

Hand tools

Motors and engines

Internal traffic

External traffic

Ventilation

Others

Any outdoor production/operations? What kind if any?

Noise abatement measures/procedures? What kind if any?

Locations

Air emissions:

Has the enterprise its own energy/heat production?

Gas / oil / waste oil / wood waste / other

Effect of energy production

Any plans on changes as to energy production/consumption?

Outlets to the air (locations to be identified):

Dust (type)

Exhaust gasses (which)

Detergents (type)

Other air emissions

Smell (what kind)

Air cleaning devices/procedures:

Which?

Effluents (points of discharge to be identified):

Any licenses for discharge of effluents?

Water supply

Generation of effluents (annual amounts, percentages of sewage, cooling water, and industrial effluents from production process)

Regular or varying discharge?

Devices/plants for treatment of effluents (separation of oil and petrol/ separation of grease / other treatment)

Recycling of water (how, how much)

Stores:

Oil (location, amount)

Chemicals (types, locations, amounts)

Waste (classification/amounts/quality and safety of storage)

Other stores of interest

Generation and disposal of waste:

Any generation of scheduled waste? (classification/chemical products sheet/amounts/proper labeling)

How is the scheduled waste disposed of?

Waste not disposed through ordinary waste collection (types/amounts)

Any sorting of recyclable materials (types/amounts)

Generation and disposal of waste:

Any generation of scheduled waste? (classification/chemical products sheet/amounts/proper labeling)

How is the scheduled waste disposed of?

Waste not disposed through ordinary waste collection (types/amounts)

Any sorting of recyclable materials (types/amounts)

Annex F

Checklist of activities, projects or installations that require approvals from the DOE

Activities	License or approvals required	Tick
I. Industrial or Project Site Planning Stage		
1. Prescribed Premises/Activities	EIA report preparation and approval	
2. Non-prescribed premises	Site suitability evaluation	
II. Prior to Construction Stage		
3. Factory which generates effluents	Written permission to construct	
4. New installations near residential area	Installation approval	
5. Fuel burning equipment: <ul style="list-style-type: none"> • Boilers • Incinerators • Generator sets • Furnaces • Ovens • Dryers • Chimney/outlet/vent discharging air impurities 	Installation approval - same - - same - - same - - same - - same - - same -	
6. Installation of air pollution control and wastewater treatment system	Prior consultation with DOE	
7. A facility that generates scheduled waste	Consultation with DOE on waste management plan	
III. Prior to Operational Stage		
8. Palm oil, natural rubber processing mills, scheduled waste treatment and recovery facilities, scheduled waste incinerators and secure landfills of scheduled waste	License to occupy and use	
9. Effluent or sludges disposal on to land	Written permission to dispose	
10. New or additional source of discharge as a result of industrial activity (increased production capacity) for existing industry	Permission to dispose new or additional source of discharge	

Annex G

Compoundable offences under the EQA

Regulations	No.	Particulars
Clean Air	4	Written approval to install industrial facilities
	7	Burning of trade waste in incinerator only
	8	Prior approval to erection of incinerator
	10	Occupier to comply with directives issued by DOE
	11	Conditions for open burning
	14	Permissible dark smoke limit for new facilities
	15	Permissible dark smoke limit for existing facilities
	17	Water vapour
	18	Occupier to provide observation device
	19	Occupier to test and keep records
	24	Solid particles concentration in heating of metals
	25	Solid particles in other operations
	26	Emission of metals and metallic compounds
	27	Emissions of gaseous substances
	28	Asphalt concrete plant
	29	Portland cement plant
	30	Facilities discharging asbestos and free silica
	31	Emission standards in specific areas
	33	Abatement of offensive odours
	34	Carry over of liquid droplets
	35	Unburnt waste and ash from incinerator
	36	Erection of fuel burning equipment
	38	Erection etc. of chimney
	40	Control equipment to be in operation
	41	Occupier to make adaptations and provide safe access
	42	Occupier to test and record
	45	Owner or occupier to render assistance
	46	Emergency requirement
	47	Installation and operation as required by DOE
Sewage and Industrial Effluents		Not applicable / not compoundable
Control of Lead Concentration in Motor Gasoline	3	Restriction on import or manufacture
	4	Restriction on possession etc.
	5	Restriction on import etc.
	10	Obstruction of authorised officer

Regulations	No.	Particulars
Scheduled Wastes	3	Notification of the generation of scheduled wastes
	4	Disposal of scheduled wastes
	5	Treatment of scheduled wastes
	6	Reduction in the generation of scheduled wastes
	7	Responsibility of waste generator
	8	Storage of scheduled wastes
	9	Waste generator's upkeep of inventory of scheduled wastes
	10	Information by waste generator, contractor and occupier of prescribed premises
Scheduled Wastes Treatment and Disposal Facilities	11	Scheduled wastes transported outside waste generator's premises to be accompanied by information
	12	Spill or accidental discharge
	4	Notification of changes compared to previous information
	5	New occupier's compliance with existing conditions
	6	Updating of inventory of scheduled wastes
	7	Measures to be taken where occupier ceases to be holder of a licence

Annex H

AN OFFER TO COMPOUND FORM

To:

.....
.....
.....

Sir/Madam, *

Reference:

It appears to me, on information/complaint* received, that you as owner/occupier* of the premises have committed the following offence under the Environmental Quality Act, 1974.

Relevant Provision of the Law:/Regulation*

Date: Time:

Place:

Particulars of Offence:

.....
.....
.....
.....
.....

2. You are hereby informed that, by virtue of the authority conferred on me by the Environmental Quality (Compounding of Offences) Rules, 1978, I am prepared, and hereby offer, to compound the offence for the sum of \$ (Ringgit:). If this offer is accepted, payment must be made in cash or by money order, postal order, cashier's order, banker's order, or banker's draft made payable to the Director-General of Environment and crossed "Account Payee Only" and may be delivered personally to me at the following address:

.....
.....
.....

Payment by post must be addressed to the Director-General of Environment, Ministry of Science, Technology and the Environment, 12th and 13th floor, Wisma Sime Darby, Kuala Lumpur. An official receipt will be issued upon payment.

3. This offer will lapse on ,
if full payment of the sum stated above is received by the close of
business on the date, no further proceedings will be taken against you in
respect of the offence. Otherwise, prosecution will be instituted without
further notice.

Dated this day of 19

*(To be signed by the person authorised to compound, whose name and
designation must appear below the signature.)*

*Delete where necessary

Director-General of Environment,
Ministry of Science, Technology and the Environment,
12th and 13th floor,
Wisma Sime Darby,
Kuala Lumpur.

I refer to the offer to compound an offence bearing reference
.....
..... and dated

I accept the offer and enclose herewith cash/money order/postal
order/cashier's order/banker's order/banker's draft* No
..... for the sum of
..... in full settlement of the compound.

Signature:

Name (Block Letters):

Address:

Date:

*Delete where necessary

Annex I

Example of the contents of an Inspection report

(as no standard report format will be able to match all thinkable kinds of enterprises the report format should, whenever appropriate, be modified to be suited to the actual type of enterprise/production)

Date and time of the inspection :

1. Reporting officer

Name/Designation :

Accompanying officers

Name/Designation :

Name/Designation :

2. Purpose of Inspection

a. Complaint on Date :

b. Investigation based on

c. First inspection

d. Follow-up inspection

e. Other reason

3. Premise Visited

a. Name of premise :

b. Address :

c. Tel : Fax :

E-mail :

d. Name of Owner/Manager/Occupier

e. Person(s) Met : Name Position

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4. Information obtained/reviewed:

a. Production process/operations

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(include production capacity, unit processes/ equipment, any changes from reported, and attachments)

b. Treatment processes

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.....

.....

c. Emissions and waste generation :		
Source	Type	Amount/day/wk/mth/yr
Air emissions :

Effluent :

Scheduled : Wastes

Solid Wastes :

Noise:
Others :

5. Compliance inspection

	Complied	Non-compliance	Section/Remarks
i. Licences		
		
ii. Production Processes		
		
		
iii. Boiler/ generator		
		

- iv. Wastewater treatment
- v. Scheduled Waste
- vi. Previous injunctions /directives /agreements
- vii. Others

6. Other observations

7. Documents inspected	Ref	Copy taken	Comments
a. Analytical results			
- Air
- Water
- Others
b. Licences

8. Other interviews :	Name	Address
a. Complainant

b. Third party/ Witness

9. Previous requirements/injunctions :

10. Photographs taken

Description

Developed on

Ready/ref.

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.....
.....

11. Samples taken

Type

Analysis by

Report ref.

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.....
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.....

12. Summary of additional items taken out of factory (other than above).

Description

Comments

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.....
.....
.....

13. Report Attachments (Including checklists, field citations, production process flowchart, materials list, interview recordings)

Description

Reference No.

a.
b.
c.
d.
e.

14. Summary of non-compliances

Type

Section of EQA/Clean Air/Sewage &
Industrial Effluents/Scheduled Wastes

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.....
.....

15. Agreements made

Action by date below

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.....

16. Recommendation for Action

Action by date below

- a. Field Citation
- b. Follow-up letter
- c. Compound
- d. Follow-up visit
- e. Meeting
- f. Full investigation

.....

17. Other observations/information etc.

Report prepared by

Checked by

Name :

Name :

Designation :

Designation :

Date :

Date :

